



INVITATION TO BID  
Professional Conservation of Historic Gravestones

The Town of Hanover, acting through its Town Manager, is requesting bids for responsible and responsive parties for Professional Conservation Services in Hanover's Historic Cemeteries. The project involves the conservation treatment of 411 historic gravestones in three cemeteries in Hanover: Hanover Center Cemetery, Union Cemetery, and West Hanover Cemetery. Prevailing wage rates as determined by the Department of Labor and Industries as specified in M.G.L. Chapter 149, sections 26 to 27F inclusively apply. Bidders are required to have current OSHA training.

Sealed bids will be accepted at the Office of the Town Manager, 550 Hanover Street, Hanover MA 02339 on the approved forms until 12:00 pm local time on Friday September 5, 2014, at which time they will be opened and read aloud. A 5% bid bond or deposit is required.

All bidders must complete a Certificate of Non-Collusion, Bidder's Certification Regarding Payment of Prevailing Wages, Tax Compliance Certificate, and a Bidder's Qualification Form included in the bid package. All bid forms must be either typewritten or written in ink. All signatures must be in ink.

Specifications and proposal forms may be obtained from the Department of Municipal Inspections Planning/CPC Office 550 Hanover Street, Hanover, Massachusetts 02339 during regular business hours on or after 8:00 AM on Wednesday August 13, 2014. Office hours are Monday, Tuesday, Thursday, 8:00 am to 4:00 pm, Wednesday 8:00 am to 8:00 pm and Friday 8:00 am to 12:00 noon excluding legal holidays. Bid packages may also be downloaded from the Town of Hanover Website at [http://www.hanoverdpw.org/Current\\_bids.shtml](http://www.hanoverdpw.org/Current_bids.shtml). Interested parties are advised to fully familiarize themselves with this specification and to visit the proposed job sites to fully understand the scope of work.

*All work must comply with the Secretary of the Interiors Standard for the Treatment of Historic Properties.* This project is funded through a grant from the Community Preservation Act for historic preservation.

The Town of Hanover reserves the right to reject any or all bids should it be deemed in the best interest of the Town to do so.

Anthony Marino  
Director of Community Services  
Central Register (August 20, 2014)  
Patriot Ledger (August 18, 2014, August 25, 2014)

**Invitation to Bid**  
**Town of Hanover**  
**Hanover Cemeteries Professional Historic Conservation Services**

**Section I: PROJECT DESCRIPTION**

The Hanover Historical Commission has determined the need for conservation treatment of several historic gravestones in three cemeteries in Hanover: Hanover Center Cemetery, Union Cemetery, and West Hanover Cemetery. Located at the northwest corner of the intersection of Hanover and Silver Streets, Hanover Center Cemetery is the oldest of the town's three public burial places. Established in 1727 on 5.5 acres, it gradually grew to be 28.6 acres. Its oldest sections lie near the northeast corner and contain many slate, sandstone, marble and granite grave markers. Union Cemetery, also referred to as Union Assinippi Cemetery, was founded in 1792 by a group of individuals living on the border between Hanover and the South (Second) Parish of Scituate. West Hanover Cemetery, also known as the Darling Cemetery, lies near the western edge of the Town on 1/10 acre. Beginning in the 1820s, it served as the burial ground for members of the Ellis, Darling and Winslow families, all residents of West Hanover. Together, the three cemeteries tell the story of Hanover, from its earliest days to the present. The purpose of this project is to restore markers, identified in the 2010 *Hanover Cemeteries Preservation Plan*, as being in need of conservation treatment. The overall goal of the project is to forestall and prevent the loss of these historic features, and to preserve them for the enjoyment of future generations.

The Town of Hanover retains copies of the *Hanover Cemeteries Preservation Plan*, completed in 2010 by Martha Lyon Landscape Architecture, LLC with Fannin-Lehner Preservation Consultants. A preliminary assessment of the conditions of these cemeteries gravestones is included in this plan. Work was begun on this project and the first phase of restoration was completed in August 2012.

The Hanover Historical Commission has acquired Community Preservation Funds (CPF) from the Hanover Community Preservation Committee (CPC) and Town Meeting appropriation pursuant to the Massachusetts Community Preservation Act (CPA) for Professional Conservation Services to complete this restoration project.

Through this solicitation and the resulting contract, the qualified proposer (Contractor) will provide non-exclusive conservation services to the Hanover Historical Commission as indicated in the detailed Scope of Work described below. Such conservation services are primarily to fill the need for outside expertise required for professional conservation services. Such conservation services are not intended to be an exclusive arrangement. The Town retains the right to solicit additional conservation services beyond the scope of the subject matter of this IFB and Contract if doing so is in the best interest of the Town.

Specifications for this project are available in the Department of Municipal Inspections Planning/CPC Office, 550 Hanover Street, Hanover MA 02339 on or after 8:00 am on Wednesday August 13, 2014. Bid packages are also available for download from the

Town of Hanover Website at [www.hanover-ma.gov](http://www.hanover-ma.gov). Interested parties are advised to fully familiarize themselves with this specification and to visit the proposed job sites to fully understand the scope of work.

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All bidders must complete the attached Certificate of Non-Collusion, Bidder's Certification Regarding Payment of Prevailing Wages, Tax Compliance Certificate, Bidder's List of Proposed Equipment, and a Bidder's Qualification Form.

## **Section II: PURPOSE**

The purpose of the professional conservation services is to treat gravestones, located in the Center, Union and West Hanover Cemeteries. These markers are identified in Appendix C as Center Cemetery Section A-G, Union / Assinippi Cemetery Section A and B, and West Hanover / Darling Cemetery of the ***October 2010 Hanover Cemeteries Preservation Plan***. The Conservator shall provide a full Scope of Work and be responsible *at a minimum* for the following services. For each task, the Contractor shall thoroughly review any and all materials provided by the Hanover Historical Commission and/or the Community Preservation Coordinator.

Important Note: This Scope of Work represents the minimum requirements under the Professional Services Contract for all prospective bidders. The Conservator/Contractor will be required to complete the following tasks and provide the following deliverables under the Contract issued pursuant to this IFB. *All conservation and restoration work will follow the Code of Ethics and Standards of the Practice of the American Institute for Conservation of Historic and Artistic Work as well as Secretary of the Interiors Standard for the Treatment of Historic Properties*

## **Section III: GENERAL CONSERVATION TREATMENT SPECIFICATIONS**

- A. Contractors will begin by obtaining from the Massachusetts Historical Commission a permit to restore gravestones and submitting a copy of the permit to the Town of Hanover prior to commencing any work.
- B. The Contractor will consult the condition assessment identified in Appendix C as Center Cemetery Section A-G, Union / Assinippi Cemetery Section A and B, and West Hanover / Darling Cemetery of the ***October 2010 Hanover Cemeteries Conservation Plan***. The Contractor will provide before, during and after photographs in color, treatments accomplished, materials used, and treatment dates as outlined below. Digital photography is acceptable. The condition assessment and treatment documentation for each stone will be collected in a single report in

the format as described below which will be the property of the Town of Hanover. The Contractor will meet with the Town of Hanover Community Preservation Coordinator, Director of the DPW and the Hanover Historical Commission to review his/her findings and recommended conservation and restoration actions.

**C. SUMMARY AND DESCRIPTION OF WORK**

1. The work of this section consists of the provision of all materials, labor and equipment and the like necessary and/or required for the complete execution of all stone conservation and resetting as required by the specifications and schedules. The repairs and conservation work may include, but may not be limited to the following tasks and methods:
2. **OUTLINE OF GENERAL SCOPE OF WORK:**
  - a. Review of existing project reports, conditions assessments and documentation for all the headstones and footstones that are scheduled to receive conservation treatments and/or resetting under this contract.
  - b. Document the condition of each grave marker or footstone scheduled to receive conservation treatments and/or resetting under this contract with a survey sheet, and digital photographs prior to proceeding with any work.
  - c. Submit conservation treatment plan for approval prior to proceeding with any work.
  - d. Stabilize all loose fragments of stone and friable areas of stone with tissue paper or cloth and B-72 or water soluble adhesives prior to proceeding with any other treatments including removal and resetting of stones.
  - e. Complete specified conservation treatments as required for each marker. Treatments include but are not limited to: Removal and resetting, removal of prior repairs and pins, gluing of pieces separated along cleavage planes, gluing and pinning of pieces broken across cleavage planes or bedding planes, grouting of fissures, cracks and seams, application of mortar caps, composite mortar repairs and laying down of flaking areas as well as attaching new pieces of stone to existing markers. Descriptions of conditions and well as recommended treatments included in the list at the end of the specifications are for the purpose of identifying the markers that will be treated under this contract and for giving a general description of the conditions and recommended treatments. The short description is not intended to define all of the treatments or treatment steps that may be required. It is the responsibility of the bidder to examine each stone on the list prior to submitting a bid.

- f. Complete all resetting of one piece slab markers or multi-part markers that are required as part of the base bid or the add alternates. Resetting of grave markers includes supplying all sand, gravel and soil required to reset the designated markers as well as all equipment and materials.
  - g. Document all treatments with digital photographs during conservation work.
  - h. Thoroughly document condition of headstone or footstone after conservation work is complete with digital photographs as well as marked sketches that indicate location of individual treatments.
  - i. Provide the town with two complete project binders containing the following: A high quality CD containing digital images of the grave stones before, during and after conservation treatments, copies of all survey sheets, field reports, project correspondence, material safety data sheets, and manufacturer's cut sheets for all products. The format should replicate that of recent conservation treatments.
3. OUTLINE OF SPECIFIC TREATMENTS: The following is an outline of required treatment steps for groups of markers but is not intended to address all of the specific treatments that will be required on individual markers.
- a. Preparation: Thorough preparation of the site and gravestone prior to conservation work is extremely important. For instance, any fragments of stone should be collected, recorded and properly stored. Weather conditions should be noted so that no wet cleaning is scheduled when air temperature is to fall below 40 degrees Fahrenheit or there is risk of freezing within 48 hours. Prior to adhesive repairs surfaces must be properly cleaned with denatured alcohol and acetone after initial cleaning with water. Unsuccessful repairs should be noted and adhesive repairs should be carefully removed; metal strap repairs removed only if stone is not friable.
  - b. Cleaning: All gravestones to be conserved must be cleaned of atmospheric dirt and biological growth with the least alteration to its historic appearance, unless cleaning would cause further erosion and loss of stone. Biological growths on stones should be removed from marble and limestone with calcium hypochlorite, architectural biocide D-2.
  - c. Resetting: Tipping, unstable, and fallen grave stones must be reset to level and plumb. Whether they were slabs set directly into the ground or set on bases, grave stones require resetting on a stable underground foundation of compacted pea stone, a minimum of 4" below a slab stone and 12" below a base. It is preferable to reset stones in their existing bases, which sometimes will require clearing fragments from the base

slot. Stones thick in cross section that are reset into bases may be reset on a full bed of mortar. A mortar mix of cement/lime (1:2) binder with masonry sand (3 parts sand by volume: 1 part binder) is recommended. Thinner stones may be reset in the original slot using a mortar mix of 1 part Type I/II white Portland cement, 4 parts hydrated lime and 8 parts fine sand. Stones set in new concrete should be set in this same mortar mix to protect stones from the effects of concrete. Reset stones should be braced in place for five days until grout is cured. The area around all reset stones is backfilled with sand and gravel, wetted and compacted, re-graded with topsoil, and seeded.

- d. Adhesive Repair: All stones to be repaired with adhesive must first be washed with water and Photo-Flo or Vulpex, rinsed, cleaned with denatured alcohol, then with acetone, dried and not touched. Epoxies rather than cement or lime mortar are required for the adhesive. Akemi Akepox, 2010 Knife Grade stone epoxy or Aboweld 55-22 by Abatron is appropriate for most stones. The adhesive should be kept back from the edge of the stone by at least ¼". The grave stone is then clamped and braced for the recommended curing time. A structural fill such as RepliCal Crack Filler is then applied to the remaining crack.
- e. Filling: Areas of stone loss must be filled in using a cementitious material that matches the unsoiled stone in color and texture. Sandstone losses may find matches with Jahn M-70 (Cathedral Stone Products, Inc.). Slate infill uses Jahn Patching Mortar. Marble fill may be Jahn M-70 Custom Limestone Maximum White, or RepliCal Marble. For stones that could not be cleaned due to threat of substantial surface loss, potassium silicate paint systems, such as Silin (Cathedral Stone Products, Inc.) or a diluted acrylic wash with alkali-stable pigments may be applied to new mortar to match uncleaned stone. Samples of all infill materials and workmanship must be submitted for approval to the Town of Hanover. Once areas of fill have been completed, they are to be misted with water and covered for a minimum of three days. All stones with fill should be protected from freezing for fourteen days.
- f. Pinning: When large stone are broken and missing pieces need to be filled, pinning is often required for sandstone, and marble markers. Slate is not a candidate for pinning. Rods of threaded stainless steel, bronze, or carbon fiber may be used and secured with an adhesive such as Akemi Akepox 2010 Knife Grade stone epoxy. The diameter of the rods should be no greater than 1/3 of the thickness of the stone and its total length six to ten times its diameter.
- g. Consolidation: Slate de-lamination is best consolidated with flowable grout. The voids in the stone first need to be cleaned of loose particles with hand tools and a low-pressure air wand. Then the interior may be cleaned by flushing with a wetting solution of isopropanol and water.

Lastly, the voids should be filled with a grout such as Jahn M-40 from the bottom up and using a backer rod for a dam. Cracks and gaps are then filled according to Adhesive Repair and Filling above. Additionally, an aluminum cap may be placed across the top of the stone to keep water from further penetrating that surface. Sandstone will sugar, flake and erode and may be consolidated with Conservare OH100, taking up to 9 applications. Marble and limestone will erode and crust from acid rain and weathering. It should be consolidated with Conservare HCT (ProSoCo) applied through the recommended course of applications.

- h. Fragments: Collected fragments should be re-attached to the marker whenever possible using an adhesive described above in Adhesive Repair and fill materials described above in Filling where necessary to stop water penetration and improve aesthetics. As above, filling materials should match originals in color and texture.
4. TREATMENT FOR MARKERS THAT REQUIRE REMOVAL FROM GROUND AND RESETTING
- a. Document conditions prior to removal using survey sheet and photography per specifications.
  - b. Secure all loose and friable areas with B-72 or water soluble adhesives and tissue paper or cloth prior to removal from the ground.
  - c. Number all fragments that are too large to be secured with B-72 using a numbering system based on the existing plot plan and the name and date of the deceased (where legible).
  - d. Remove soil residue from stones with water and stiff natural fiber brushes and wood scrapers.
  - e. Remove prior adhesive and composite patching repairs. (Remove old pins where applicable)
  - f. Re-adhere fragments using specified adhesives and methods. (Install new stainless steel pins where required)
  - g. Laydown flaking areas with specified grouts/adhesives.
  - h. Fill cracks, seams and fissures with specified grouts.
  - i. Fill areas of loss with specified composite repair materials.
  - j. Apply mortar caps on top surface of stones with specified materials.
  - k. Document the locations of all treatments on survey sheets. Photograph stone during treatment with digital photographs.

- l. Reset stone per specifications and photograph stones after they have been reset.
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5. TREATMENT FOR MARKERS THAT REMAIN IN PLACE DURING TREATMENT
    - a. Document conditions prior to starting treatments using survey sheet and photography as per specifications.
    - b. Secure all loose and friable areas with B-72 or water soluble adhesives and tissue paper prior to starting other treatments.
    - c. Remove soil residue and biological growths from stones with water, specified cleaning agents and stiff natural fiber brushes and wood scrapers.
    - d. Remove prior adhesive and composite patching repairs where applicable. (Remove existing pins where applicable)
    - e. Clean areas that are to be adhered using compressed air or low pressure water to remove foreign materials.
    - f. Clean mating surfaces or areas to be grouted with solvents.
    - g. Re-adhere fragments using specified adhesives and methods.
    - h. Laydown flaking areas with specified grouts/adhesives.
    - i. Fill cracks, seams and fissures with specified grouts.
    - j. Fill areas of loss with specified composite repair materials.
    - k. Apply mortar caps on top surface of stones.
    - l. Document locations all treatments on survey sheet. Photograph stone during and after treatment with digital photographs as per specifications.
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6. TREATMENT FOR MARKERS THAT REQUIRE RESETTING ONLY AND NO ADDITIONAL TREATMENT
    - a. Document slab markers prior to starting resetting with a digital photograph and a second time when the marker is lying flat prior to resetting and a third time after it has been reset. Multipart markers need only be photographed before and after resetting.



- b. Some of the markers designated for resetting only are still in the ground but leaning while others are toppled and lying on the ground. Removal of leaning markers from the ground is a required treatment step. Do not attempt to true stones that are leaning without removing and then resetting them.
- c. Cleaning of markers designated for resetting only is not required.

## **Section IV: SUBMITTALS**

### **A. RESUMES AND QUALIFICATIONS: Contractor shall submit resumes and qualifications for each or the following individuals:**

1. Lead Conservator (s): Shall submit resume and a list of prior projects for Lead Conservator on the project. The Lead Conservator must provide at least 5 examples of projects with at least seven [7] years of experience with each category of work, including resetting marble and slate stones to base, building new bases, repairing fractures and delaminating in marble and slate, excavating and inspection for lost pieces and fragments of stones, and cleaning as needed with a minimum of three (3) years of full-time professional experience applying the theories, methods, and practices of Conservation that enables professional judgments to be made about the identification, evaluation, documentation, or treatment of objects associated with historic and prehistoric properties in the United States and its Territories; and the products and activities that demonstrate the successful application of acquired proficiencies in the discipline to the practice of historic preservation. The Lead Conservator shall be a recognized professionally by the American Institute of Conservation holding current membership and either possess a graduate degree in conservation or a graduate degree in a closely related field of study with a certificate in conservation, or the Lead Conservator may retain a person with such qualifications to be available for consultation on this project. Submittal shall include at least 5 examples of projects similar in scope and importance to the work at Hanover Historic Cemeteries. *All work must comply with the Secretary of the Interiors Standard for the Treatment of Historic Properties.* This project is funded through a grant from the Community Preservation Act for historic preservation. Project references shall include name and date of execution of each project with details of types of stones treated [marble, slate, etc.] and type of treatment [resetting, cleaning, repairing fragments, etc.] as well as the names and telephone numbers of references for each of the five projects. The Lead Conservator shall be responsible for supervision of technicians and craftsmen and management of the project.
2. Conservation Technicians and Stone Craftsmen: Contractor shall submit separate resumes and a list of prior projects for each individual who will be executing treatments on the markers. Conservation Technicians and Stone

Craftsmen must have seven [7] years prior experience as outlined in the Lead Conservator's experience above.

- B. **PRODUCT DATA:** Submit manufacturer's technical data for each product proposed in the treatment plan including recommendations for their application and use. Include test reports and certifications substantiating that products comply with requirements. Submit material safety data sheets for each product.
- C. **WRITTEN DESCRIPTION:** Submit written program for each phase of conservation including schedule and phasing. Include items for coordination with the client and indication of how surrounding graves, grave markers, monuments and vital plantings will be protected. Describe materials and equipment to be used on site.
- D. **ALTERNATE METHODS:** If after the contract is awarded, alternate methods and materials to those indicated in the bid specifications are proposed for any phase of the conservation work, the contractor shall provide a written description, including evidence of successful use on other comparable projects along with the standard submittals outlined above. Written approval from the project manager is required prior to substituting any materials or methods.
- E. **MOCK UPS**
  - 1. Sample of workmanship for stone stabilization with B-72 or water soluble adhesives and tissue paper or cloth.
  - 2. The contractor shall submit one sample of removal of prior adhesive repairs and prior composite mortar repairs in locations indicated by project manager. Samples to be evaluated for methodology and impact on stone.
  - 3. Contractor to submit one sample of stone to stone adhesive joints for approval prior to proceeding with balance of repairs.
  - 4. Contractor to submit one sample of grout injection for approval.
  - 5. Contractor to submit one sample each of mortar fills composite mortar repairs and mortar caps.
  - 6. Contractor to submit one completed treatment cycle of a slate marker that has been removed from the ground, treated and reset.
  - 7. Contractor shall submit sample of representative condition assessment and treatment documentation sheets prior to starting work.
  - 8. Contractor to submit sample of mortar fill or patch painted with Kiem mineral paint or approved equal. Sample to be applied to fully cured mortar.

## **Section V: QUALITY ASSURANCE**

- A. Statement of Significance: The grave markers and headstones at the Center, Union Assinippi and West Hanover Cemeteries represent the earliest and most significant grave markers in Hanover. All work performed must comply with the United States Secretary of the Interior's Standards for the Treatment of Cultural Landscapes and the AIC Code of Ethics and Guidelines for Practice.
- B. The contractor shall maintain a steady crew for the duration of the project and employ a qualified foreman who is present on the job site.

## **Section VI: JOB CONDITIONS**

- A. Take whatever precautions are necessary to protect all of the grave markers in this contract as well as adjacent markers, graves and monuments from damage resulting from work under this section or other related sections of work.
- B. Prevent mortar and patching compounds, adhesives, resins etc used in conservation and repair work from staining the stones under treatment or any adjacent stones, masonry, bronze etc. Prevent damage from other materials or chemicals used on the project.
- C. Work shall not be permitted in freezing weather unless the work area has been enclosed and heated to maintain a constant temperature and humidity.
- D. Materials shall be used only at the manufacturer's recommended and temperature and humidity tolerances. In case of conflict between standards on the project, the more stringent shall apply.

## **Section VII: PRODUCTS**

### **A. MATERIALS GENERAL**

- 1. Comply with referenced standards and other requirements indicated applicable to each type of material required.
- 2. Reference in the specifications to materials by trade name is to establish a standard of quality. It is not intended to exclude other manufacturers whose materials that, in the judgment of the project conservator are equivalent to those named based on sample panels.

### **B. MORTAR MATERIALS FOR FILLS, REBUILDING AREAS OF LOSS and MORTAR CAPS**

## 1. COMPOSITE REPAIR MORTARS

- a. Non-Polymer Modified Composite Repair Mortars for filling areas of loss in Slate or Marble : Jahn M-70, Jahn M-120, 160 from Cathedral
- b. Stone Products. 8332 Bristol Court, #107, Jessup, Maryland 20794 (800) 684-0901; or equal.
- c. Polymer Modified Composite Repair Mortars for Mortar Caps and Seam fills on Slate Markers : Edison Custom System 45 from Edison Chemical Systems, Inc. 25 Grant Street, Waterbury, CT 06704 (203) 597-8044; or equal.
- d. Hydraulic Lime Based Repair Mortars for Filling Seams and areas of Loss on Marble Markers: Lithomix from St Astier Naturally Hydraulic Lime available from Virginia Limeworks PO Box 516 Monroe, Virginia 24574; or equal.

## 2. GROUT MATERIALS

- a. Acryloid B-72 (Ethyl Methacrylate Copolymer) or equal dissolved in solvent. Concentrations to vary depending on the depth and width of the crack or void to be filled. Large voids to be filled with B-72 bulked with an inert material such as fine silica sand. Exact proportions to be determined by conservator in the field based on the size of the area to be filled and other requirements such as the ability of the mix to flow evenly through the area.
- b. Hydraulic Lime Grout for fills and injecting into voids -1 part hydraulic lime.-3 parts fine sand and/or stone dust and inorganic pigment as required to match color of slate. Not to exceed ASTM ratios of pigment to binder.

## 3. MATERIALS FOR THE STABILIZATION OF LOOSE FRAGMENTS PRIOR TO THE REMOVAL OR OTHER TREATMENTS

- a. Acrylic Resin B-72 and Japanese tissue paper or fine cloth such as silk Crepeline applied to the surface of the friable or loose stone. B-72 to be dissolved in solvent such as acetone. Percentage of solids to solvent to be field tested. Approximately 5% . For situations where a water soluble adhesive is appropriate: Methyl Cellulose or Polyvinyl Alcohol can be used to lay down the tissue paper or cloth.

## 4. STONE ADHESIVES FOR NON-STRUCTURAL REPAIRS AND LAYING DOWN OF STONE FLAKES AND VERY SHALLOW AREAS OF EXFOLIATION

- a. Paraloid Acrylic Resin B-72 (100%) [or equal] dissolved in solvent such as acetone. Percentage of solids to solvent to be field tested. Approximately 10%
  - b. Paraloid B-72 can be obtained from Talas, 568 Broadway NY, NY 10012 (212) 219-0770 or other conservation supply companies.
5. STONE ADHESIVE FOR STRUCTURAL REPAIRS AND PINNINGS
- a. Flowable and Paste Epoxies for injections and structural repairs:
  - b. Akemi Akepox 2000, 2010, 2030, 5000, 5010 [or equal] from Akemi North America(877) 462-5364 available from Stone Boss Industries, 26-04 Borough Place, Woodside, NY 11377 (718)278-2677 Fax (718) 267-1997
6. CLEANING AGENTS FOR REMOVING SOILING PRIOR TO ADHESIVE REPAIRS
- a. Water: All water shall be clean potable water. If potable water is not available at jobsite, filter all water with approved particulate filter.
7. CLEANING AGENTS FOR REMOVING BIOLOGICAL GROWTHS
- a. Prosoco Biowash [or equal] [www.prosoco.com](http://www.prosoco.com)
8. TOPICAL COLORING AGENT FOR COLOR MATCHING OF MORTAR PATCHES, SEAMS AND CRACK FILLS ON SLATE MARKERS
- a. Kiem Purktistalat silicate paints [or equal] available from Kiem Mineral Systems, #62 Port Lewes, Lewes, and Delaware 19958 (302) 644-1007 Fax (302) 644-0866
  - b. Silin Stain [or equal] from Cathedral Stone Products. 8332 Bristol Court, #107, Jessup, Maryland 20794 (800) 684-0901
9. PINS FOR STRUCTURAL REPAIR OF FRAGMENTS
- a. Stainless steel Threaded rod grade 304 or better.
10. SOLVENTS FOR FLUSHING CRACKS AND FISSURES AND FOR REPAIRING MATING SURFACES PRIOR TO GROUTING OR ADHESIVE REPAIRS
- a. Acetone (CH<sub>3</sub>) CO

b. Ethanol-D6 Anhydrous

C. SOIL MATERIALS

1. Structural Fill: Provide gravel, sandy gravel, or gravelly sand free from organic material. Loam, trash, snow, ice, frozen soil and other objectionable materials and well graded within the following limits.

Sieve Size Passing Through	Percent Finer by Weight
6 inches	100
No. 4	30-90
No. 40	10-50
No. 200	0-8

2. Crushed Stone: Provide clean, washed crushed stone free of fine materials and graded within the following limits:

Sieve Size Passing Through	Percent Finer by Weight
6 inches	100
¾ inch	90-100
½ inch	20-30
No. 4	0-5
No. 40	0-5
No. 200	0-5

D. PINS FOR STONE TO STONE PINNING AT MULTIPART MARKERS

1. Replace all existing steel pins with grade 304 or better stainless steel threaded rod matching the existing diameters and cut to the necessary lengths.
2. For two and three piece markers and monuments that were not previously pinned, utilize two 5/8" diameter grade 304 or better stainless steel pins cut to length from threaded rod.

E. MORTAR FOR SETTING TWO AND THREE PIECE MARKERS AND UPRIGHT MONUMENTS.

1. Setting Mortar shall be: 1 part Type 1 White Portland Cement or a combination of Type 1/Type II Portland Cement as required to match existing mortar color, 1 Part Type S lime and 6 parts mortar sand.
2. Pointing Mortar for White marble shall be: 1 part Type 1 White Portland Cement or a combination of Type 1/Type II Portland Cement as required to match existing mortar color, 1 Part Type S lime and 6 parts mortar sand.

3. Pointing Mortar for Granite to Granite Joints shall be tinted with alkali resistant colors specifically formulated for use with cement.

**F. CEMENTITIOUS GROUT FOR SETTING STAINLESS STEEL PINS OR SETTING UPRIGHT MARKERS IN SLOT BASES**

1. Pin setting grout shall be: 1 part Type 1 White Portland Cement, 1/2 Part Type S lime and 3 parts fine sand.

**Section VIII: DIG SAFE NOTIFICATION**

- A. The Contractor shall obtain a Dig-Safe number for this project, notify all utilities not covered by Dig Safe of the proposed work, take all necessary means to protect utilities, including town and privately owned utilities, and be responsible for any damage to utilities as a result of the activities in the execution of this contract.
- B. Utilities that have been properly marked then disturbed or broken by the Contractor will be repaired by the Contractor.

**Section IX: INHERENT COSTS INCLUDED IN PROPOSAL PRICE**

- A. Inherent in the Contractor's price shall be fuel to operate Contractor's equipment, necessary spare parts to execute the contract, travel costs, food and lodging for personnel, insurance including workmen's compensation, vehicle liability insurance, and general liability insurance, as well as any and all other incidental costs needed to faithfully execute the contract.

**Section X: ADDITIONAL OBLIGATIONS OF THE CONTRACTOR**

- A. The Contractor will maintain an agreed upon schedule subject to severe weather conditions.
- B. The contractor shall have sufficient back-up equipment available to him in the event of breakdowns.
- C. The Contractor shall have a supervisor or foreman available to direct operations and report to the Public Works Director or his designee any problems and progress.
- D. It is the intent of these specifications to provide the Department with quality material, service and good product suitable for its Cemetery Restoration program. All items will be bid, delivered and installed and subject to the Public Works Director's approval prior to final payment.

- E. Contractor shall comply with all necessary and required insurance policies contained herein.
- F. Provide all necessary safety equipment and signage to protect workers and abutters.
- G. Prior to the start of work, the contractor shall meet on-site with the Public Works Director or his designee to define the limits of work. The Town reserved the right to expand or reduce the amount of work as the job progresses to complete the project according to the Town's needs.

## **Section XI: INFORMATION TO BIDDERS**

### **A. GENERAL**

- 1. The work proposed by this invitation to bid is strictly limited to that which is listed in the specification. Quantities listed on the bid form are estimates only to be used to evaluate bids in a uniform manner. It is the bidder's responsibility to visit the proposed job site and become thoroughly familiar with the existing conditions before placing a bid.

### **B. GUARANTEE**

- 1. Proposals must be accompanied by a properly certified check or bid bond in the amount of 5% of the proposed bid payable to the Town of Hanover.

### **C. INSURANCE**

#### **1. WORKMEN'S COMPENSATION INSURANCE, DISABILITY, UNEMPLOYMENT COMPENSATION**

- a. The contractor will provide and maintain, and shall require its subcontractors to provide and maintain, all required insurance for its employees, including disability, worker's compensation, and unemployment compensation, in accordance with the laws of the Commonwealth of Massachusetts.

#### **2. MOTOR VEHICLE AND GENERAL LIABILITY INSURANCE**

- a. The contractor shall provide and maintain, and shall require its subcontractors to provide and maintain appropriate motor vehicle and comprehensive general liability insurance covering property damage and personal injuries in amounts equal to or greater than those currently carried by the Town. The current minimum amounts shall be general liability of at least \$1,000,000 bodily injury and property damage liability per occurrence and \$3,000,000 aggregate. The minimum amounts of automobile liability insurance shall be at least \$1,000,000 bodily injury and property damage per accident. The vendor and any subcontractor it uses, shall provide the Town of Hanover with certificates of insurance evidencing the insurance



required by this paragraph, which shall name the Town as an “additional insured” and include a thirty day notice of cancellation to the Town.

#### D. PROSECUTION AND PROGRESS

1. The contractor shall commence work when directed after execution of the contract. The Town Manager shall have the ability to terminate the contract if in his sole estimation the work is not progressing according to the Town’s expectations.

#### E. PREVAILING WAGE

1. Pursuant to M.G.L., the contractor shall pay all personnel involved in the execution of this contract the prevailing local union wage for such activities. The prevailing wage rates as determined by the Commonwealth of Massachusetts, Department of Labor and Workforce Development as specified in M.G.L. Chapter 149, sections 26 to 27F inclusively apply and are attached.
2. The contractor is required to record the hours worked and wages paid to each employee and shall provide the town with certification that the prevailing wages have been paid and a copy of these records on a weekly basis.

#### F. ADDITIONAL REQUIRED DOCUMENTATION

1. All bidders must complete attached Certificate of Non-Collusion, Bidder's Certification Regarding Payment of Prevailing Wages, Tax Compliance Certificate, and a Bidder's Qualification Form.
2. Per Massachusetts General Laws, all employees who are to be employed at the worksite and employees of subcontractors shall have successfully completed a course in construction safety approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time that the employee begins work. All covered employees must carry documentation of OSHA 10 training when they are on the worksite or be able to immediately direct a representative of the Attorney General’s Office (AGO) to where documentation is kept on the worksite. In the event that a covered employee cannot provide documentation for a representative of the AGO while the representative is on site, the employee will be required to leave the worksite until documentation is provided to the AGO. Contractor shall supply certification of said compliance with each pay requisition. Any person found on the worksite without documentation of successful training is subject to immediate removal.

#### G. QUESTIONS AND ADDENDA

1. All questions regarding this specification shall be made in writing and must be received on or before 4:00 pm local time on Monday April 7, 2014. Answers to said questions will be posted in a PDF format to the Town of Hanover website [www.hanover-ma.gov](http://www.hanover-ma.gov) by 12:00 pm local time on Friday April 11, 2014. It is the

responsibility of bidders to check the website for updates. By submitting a bid, bidders acknowledge that their bids are based on all addenda that have been posted on the website.

## **Section XII: PERFORMANCE SCHEDULE, DELIVERABLES, AND PAYMENT SCHEDULE**

- A. **Task One:** Evaluate the headstones identified in the 2010 *Hanover Cemeteries Preservation Plan* which were not included in phase one of the cemetery preservation project and as augmented in the proposal, and determine the treatment needed. Complete a stone inventory form detailing problems and repairs required for each of the headstones or monuments. Provide a photograph or digital image for each stone showing its pre-treatment condition.

Deliverables: An inventory report detailing the condition and repairs that will be undertaken on each stone. *The Contractor shall deliver both hard-copy (3 paper prints) and electronic version of the inventory report in agreed upon standard file formats accessible by the Town (Word, JPEG, XLS, PDF, etc.). The inventory report shall become the property of the Town of Hanover and shall be available for use by the Town as necessary in future without limitation.*

Completion Date Task One: **3 months after contract signing.**

Payment: Not more than 10% of the contract price.

- B. **Task Two:** Obtain the necessary permits to undertake work from state and/or Massachusetts Historical Commission.

Deliverables: Originals or photocopies of the permits required

Completion Date: **3 months after contract signing.**

Payment: Not more than 10% of the contract price.

- C. **Task Three:** Undertake the repairs identified and approve in Task One. As part of this, the Contractor will participate in Hanover Day, scheduled for June 2016, during which he/she will make a presentation about their treatment of the stones.

Deliverables: A presentation at Hanover Day. A letter from the Contractor certifying completion of the conservation and restoration work. A field verification may be required.

Completion Date: **Within 28 months after contract signing.**

Payment: Not more than 60% of the contract price.

- D. **Task Four:** Document the repairs made and the final condition of the stones.

Deliverable: Inventory forms including an image for each stone after work has been completed. *The Contractor shall deliver both hard-copy (3 paper prints) and*

*electronic version of the inventory forms in agreed upon standard file formats accessible by the Town (Word, JPEG, XLS, PDF, etc.). The inventory forms shall become the property of the Town of Hanover and shall be available for use by the Town as necessary in future without limitation.*

Completion Date Task Four: **Within 28 months after contract signing.**

Payment: Not more than 10% of the contract price.

- E. **Task Five:** Create a final report compiling inventory forms and photographs or digital images and submit to the Town of Hanover Community Preservation Coordinator.

Deliverable: Final Report. *The Contractor shall deliver both hard-copy (3 paper prints) and electronic version of the final report in agreed upon standard file formats accessible by the Town (Word, JPEG, XLS, PDF, etc.). The inventory forms shall become the property of the Town of Hanover and shall be available for use by the Town as necessary in future without limitation.*

Completion Date: **Within 28 months after contract signing.**

Payment: Not less than 10% of the contract price.

## **Section XI11: PRICING STRUCTURE AND RULE FOR AWARD**

### **A. RULE FOR AWARD**

1. One contract will be awarded to the responsive and responsible bidder offering the lowest overall price for the completed project based on the *Contractor's* ability to complete the scope of work as outlined in this Invitation to Bid.

### **B. PRICE STRUCTURE**

1. The Town will assign an inspector who will inspect all work areas and quality of work of all payment items applied for payment purposes.

## **Section XIV: PAYMENTS**

### **A. TERMS**

1. The payment terms of this contract shall be net 30.
2. The Town of Hanover is Tax Exempt.

## **Section XV: RIGHT TO SUSPEND/TERMINATE WORK**

### **A. TOWN'S RIGHTS**

1. The Town retains the exclusive right to suspend/terminate the project based on the quality of the work or the failure of the contractor to meet any of the requirements of this specification. The decision to suspend or terminate rests solely with the Town Manager for the Town of Hanover whose decision is final.

### **B. CONTRACTOR'S RIGHTS**

1. Should the Town terminate or suspend the project, the contractor's sole recourse shall be collection of the percentage of the total contract work completed to the Town's satisfaction.

## Section XVI: BID FORM

To: Town Manager  
Town of Hanover  
550 Hanover Street  
Hanover, MA 02339-1693

The undersigned hereby proposes to supply all labor, superintendence, machinery, equipment, materials, trucking, and tools to perform the work of Professional Conservation Services in Hanover's Historic Cemeteries in accordance with the Town's specifications listed above. In submitting a bid, the undersigned acknowledges he/she fully understands the project and the existing conditions, and has reviewed and understands any addenda related to this project posted on the Town of Hanover website ([www.hanover-ma.gov](http://www.hanover-ma.gov)).

The Town of Hanover shall receive sealed bids at the office of the Town Manager, 550 Hanover Street, Hanover MA 02339 until 4:00 pm local time on Friday September 5, 2014 at which time they will be opened and read aloud. All bid forms must be either typewritten or written in ink. All signatures must be in ink. The Town of Hanover is tax exempt. Bid prices shall be considered firm for thirty (30) days from the date of opening. Please indicate Bid price numerically and in writing.

Contract will be awarded based on the rule for award listed in this specification.

BID Amount: \_\_\_\_\_

BID Amount: \_\_\_\_\_

By: \_\_\_\_\_

Company

Signature

\_\_\_\_\_  
Address

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Telephone

The Town of Hanover reserves the right to reject any and all bids should it be deemed in the best interest of the Town to do so. All bidders must complete the attached Certificate of Non-Collusion, Bidder's Certification Regarding Payment of Prevailing Wages, Tax Compliance Certificate, and Bidder's Qualification Form. In addition bids must contain a 5% bid bond, and list of equipment intended for use in servicing this contract.

## CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid has been made and submitted in good faith and without collusion or fraud with any other person.

As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

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(Signature of Individual signing/submitting the bid)

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(Name of person signing bid)

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(Name of business)

## TAX COMPLIANCE CERTIFICATE

Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all State tax returns and paid all State taxes required under law.

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Social Security Number  
or Federal Identification  
Number

---

Signature of Individual or  
Corporation

---

Corporate Officer (If Applicable)

Date: \_\_\_\_\_



**BIDDER'S QUALIFICATION FORM – See Page 9 Section IV: SUBMITTALS, RESUMES AND QUALIFICATIONS**

Please attach additional pages as needed

- 1) Name of Bidder:
2. Permanent Main Office Address:
3. When Incorporated (If Applicable):
4. Where Incorporated (If Applicable):
5. How many years have you been engaged in the contracting business under your present firm name:
6. Educational in Conservation or closely related field:  
Undergraduate:  
Graduate:
7. Conservation Certifications:
8. Years of experience in Conservation field:
9. Contracts on Hand: (Type of project, client, gross amount, estimated completion date):  
A)  
B)  
C)
10. Please list 5 (five) projects similar to the work of this contract, recently completed by your company, stating the name, address and telephone number of the owner, name and location of similar project, approximate cost for each, and time period of contract performance (month and year started/month and year completed).  
1)  
  
2)  
  
3)

4)

5)

10. Please list 5 references which will provide and attest to quality of contracted work. Please provide contact information for each.

1.

2.

3.

4.

5.

11. Please list each individual either Conservation Technicians or Stone Craftsmen who will be executing treatments on stones (Please include year of experience)

Name

Years of Experience


12. General character of work performed by your company:

13. Have you ever failed to complete any work awarded to you?

Yes:\_\_\_\_\_ No:\_\_\_\_\_

If yes, where, when and why:

14. Have you ever defaulted on a contract?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

If yes, where, when and why:

15. With what banks do you do business?

16. Do you grant the Awarding Authority permission to contact this (these) institution(s)?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

Dated at \_\_\_\_\_ this \_\_\_\_ day of \_\_\_\_\_

Name of Bidder

By (Signature) \_\_\_\_\_

By (Printed) \_\_\_\_\_

Title \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

I, \_\_\_\_\_ being duly sworn, deposes and says that he is of  
\_\_\_\_\_ and that the Title \_\_\_\_\_  
\_\_\_\_\_ Name of Organization answers to the foregoing questions and all  
statements contained therein are true and correct.

Sworn to me this day of \_\_\_\_\_, 20\_\_\_\_.

Notary

My commission expires

## BIDDER'S CERTIFICATION REGARDING PAYMENT OF PREVAILING WAGES

The undersigned bidder hereby certifies, under the pains and penalties of perjury, the foregoing bid is based upon the payment to laborers to be employed on the project of wages in an amount no less than the applicable prevailing wage rates established for the project by the Massachusetts Department of Labor and Industries. The undersigned bidder agrees to indemnify the awarding authority for, from and against any loss, expense, damages, action or claims, including any expense incurred in connection with any delay or stoppage of the project work, arising out of or as a result of (1) the failure of the said bid to be based upon the payment of the said applicable prevailing wage rates or (2) the failure of the bidder, if selected as the contractor, to pay laborers employed on the project the said applicable prevailing wage rates.

Date

Name of Bidder

By (Signature)

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By (Printed)

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Title

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